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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/620,176

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Baber Amin

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11/02/2006

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EXAMINER

NALVEN, ANDREW L

ART UNIT

PAPER NUMBER

2134

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/620,176

Applicant(s)

AMIN ET AL.

Examiner

Andrew L. Nalven

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/18/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-20 are pending.
2. Amendment submitted 18 August 2006 has been received and entered.

Response to Arguments

3. Applicant's arguments filed 18 August 2006 have been fully considered but they are not persuasive.
4. Applicant has argued on page 7 that the Tumblin reference's NSIM cannot be equivalent to the claimed upper connection layer. Applicant asserts this by arguing that it is the SIM that establishes a new session/connection and arguing that it is the SIM that provides connectivity. Examiner contends that these arguments fail to establish that the NSIM cannot be viewed as an upper connection layer. In systems such as TCP/IP and OSI, connection layers are divided up whereby each layer provides particular functionality for a connection. It is the lower connection layers, such as the data link layers, that generally provide the actual connectivity and it is the upper connection layers that generally provide for data formatting, security, and prevention of data loss. Examiner notes that the division of functionality differs for each system and the above description is merely meant as an example. However, Examiner maintains that even if Applicant's contention that connectivity is provided by the SIM is true, it does not necessarily follow that the NSIM cannot be viewed as an upper connection layer.

5. Applicant further argues on pages 7-8 that Tumblin's security non-extensible application is not "security unaware." Applicant supports this assertion by arguing that the security non-extensible application merely is not capable of security and asserts there is a distinction between security aware and security capable. Examiner respectfully disagrees. Tumblin's security non-extensible applications are not security capable and they are not security aware. Tumblin's security non-extensible applications attempt to create connections by calling Winsock, a standard connection request function (Tumblin, column 8 lines 19-21). This connection request is then intercepted by the NSIM which then takes over providing for the new connection by interfacing with the SIM to authenticate and provide security (Tumblin, column 8 lines 21-67). Since the security non-extensible application makes a standard connection call that is intercepted it cannot be said that the application is security aware.

6. Further, Examiner notes that the security non-extensible application does not intentionally direct data to the NSIM as asserted by Applicant on page 8. Instead, as noted above, the NSIM intercepts data.

7. Applicant further argues on pages 8-9 that the NSIM is not an upper connection layer of a protocol stack. Examiner respectfully disagrees. A transport protocol stack is a series of software implementations that work to transport data between two points. Tumblin's NSIM and SIM work in exactly this manner. Tumblin teaches an upper connection layer of a transport protocol stack receiving application data directly from an application (Tumblin, column 8 lines 10-35) by disclosing the application directly submitting data to the NSIM (viewed as the upper connection layer). The application

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data is then passed to the security layer (Tumblin, column 8 lines 10-35) as is evidenced by the passing of application data from the NSIM (upper connection layer) to the SIM (security layer "security integration module").

8. Finally, Applicant argues that Tumblin fails to teach a connection specific API that is not associated with security. Examiner respectfully disagrees. Tumblin teaches directly receiving application data, from an application, at an upper connection layer of a transport protocol stack (Tumblin, column 8 lines 19-28), wherein the application data is received from the application using a connection specific application programming interface (API) desired for communication by the application and which is not associated with security (Tumblin, column 8 lines 19-28, NSIM creates new connection). The connection specific API is not associated with security because the SIM, security integration module, provides the security services.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-2, 4, 6-9, 12, 14-18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Tumblin et al US Patent No. 6,490,679. Tumblin teaches a system for seamless integration of application programs with security key infrastructure.

11. With regards to claims 1 and 7, Tumblin teaches directly receiving application data, from an application, at an upper connection layer of a transport protocol stack (Tumblin, column 8 lines 19-28), wherein the application data is received from the application using a connection specific application programming interface (API) desired for communication by the application and which is not associated with security (Tumblin, column 8 lines 19-28, NSIM creates new connection), passing the application data from the upper connection layer to a security layer from within the transport protocol stack and unbeknownst to the application (Tumblin, column 8 lines 19-21 and Figure 7 Item 210), encrypting the application data within the security layer (Tumblin, column 8 lines 45-53), passing the encrypted application data from the security layer (Tumblin, Figure 7 Item 290) to a lower connection layer of the transport protocol stack (Tumblin, column 9 lines 45-49 and Figure 7), and sending encrypted application data from a lower connection layer out a network connection (Tumblin, column 9 lines 45-49 and Figure 7). The application disclosed by Tumblin is not required to perform security handshakes in order to send encrypted application data over the network (Tumblin, column 9 lines 50-53 and column 8 lines 10-11), the connection layer supports at least one network transport protocol and the security layer is not specific to the transport protocol (Tumblin, column 8 lines 19-22).

12. With regards to claims 2 and 16, Tumblin teaches receiving encrypted application data at the lower connection which came in at the network connection (Tumblin, column 9 lines 38-49, Figures 2 and 7), decrypting the application data within the security layer (Tumblin, column 9 lines 39-45), passing the decrypted application data from the upper connection layer to the application (Tumblin, column 8 lines 19-20, column 9 lines 39-49, Figures 2 and 7) without requiring that the application perform a security handshake (Tumblin, column 9 lines 50-53 and column 8 lines 10-11).

13. With regards to claims 8-9 and 17, Tumblin teaches connection layers comprising code for performing a WinSock network transport protocol (Tumblin, column 8 lines 19-22) and a Secure Socket Layer Session (Tumblin, column 7 lines 16-20).

14. With regards to claim 12, Tumblin teaches the security layer and at least one of the connection layers identifying a particular application and its cryptographic properties (Tumblin, column 8 lines 19-27 and 45-53).

15. With regards to claims 4 and 14, Tumblin teaches a means for establishing a secure connection using a specified handshake mode (Tumblin, column 7 lines 16-20 and column 8 lines 19-22).

16. With regards to claim 15, Tumblin teaches a legacy application that performs security handshakes (Tumblin, column 6 lines 15-24) and a security module that supports a secure connection to the legacy application (Tumblin, column 6 lines 22-24).

17. With regards to claim 18, Tumblin teaches the receiving of the encrypted application data at the lower connection layer using a transport model (Tumblin, column 8 lines 10-22).

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18. With regards to claim 20, Tumblin teaches a secure network communications protocol stack interface which is callable from at least the lower connection layer (Tumblin, column 9 lines 38-60).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tumblin et al US Patent No. 6,490,679 in view of SSL-Talk List FAQ Secure Sockets Layer Discussion List FAQ v1.1.1 ("SSL-Talk List FAQ").

21. With regards to claim 3, Tumblin, as described above, fails to teach the lower connection layer establishing a connection with a handshake mode that is at least one of an interactive mode and a blind-root accept mode. The SSL-Talk List FAQ teaches the use of an interactive mode when establishing a connection with a handshake (SSL-Talk List FAQ, Section 5.3). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize the FAQ's suggested interactive mode with Tumblin's system because it offers the advantage of allowing a user to override a failed attempt to authentication a server (SSL-Talk List FAQ, Section 5.3).

22. With regards to claim 10, Tumblin as modified fails to teach the connection layer performing transport layer security sessions. The SSL-Talk List FAQ teaches the

inclusion of Transport Layer Security Protocols within secure communication systems (SSL-Talk List FAQ, Section 6.2.1).

23. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tumblin et al US Patent No. 6,490,679 in view of Samar US Patent No. 6,304,974. Tumblin, as described above, fails to teach the changing of a list of trusted roots for a secure connection. Samar teaches the changing of a list of trusted roots (Samar, column 7 line 53 – column 8 line 7). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Samar's method of updating lists of trusted roots with Tumblin's system because it offers the advantage of allowing a user to avoid a particular certificate authority if the user does not have confidence in their entity authentication (Samar, column 2 lines 4-13).

24. Claims 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tumblin et al US Patent No. 6,490,679 in view Novell NetWare Connection Enhanced NetWare 5 "What's Enhanced in NetWare 5."

25. With regards to claims 11 and 19, Tumblin, as described above, fails to teach an application comprising code for providing lightweight directory access protocol services. "What's Enhanced in NetWare 5" teaches the inclusion of applications providing LDAP services using a transport protocol in the form of a Novell transport ("What's Enhanced in NetWare 5", Section "Lightweight Directory Access Protocol LDAP support"). At the time the invention was made, it would have been obvious to a person of ordinary skill in

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the art to utilize the enhancements defined by "What's Enhanced in NetWare 5" because it offers the advantage of allowing users to easily access X.500 based directories such as NDS.

26. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tumblin et al US Patent No. 6,490,679 in view Microsoft Security Advisor SSL Specific WSAIoctl Controls ("MS SSL Advisor"). Tumblin, as described above, fails to teach the identifying of a function as a call back function. The MS SSL Advisor teaches the use of a call back function (MS SSL Advisor, Page 1/15, Paragraph 2). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize the MS SSL Advisor's call back function because it offers the advantage of allowing the service provider to access security information from the application as it considers necessary (MS SSL Advisor, Page 1/15, Paragraph 2).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Nalven whose telephone number is 571 272 3839. The examiner can normally be reached on Monday - Thursday 8-6, Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571 272 3799. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

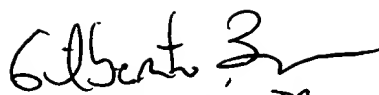
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Andrew Nalven

A handwritten signature in black ink, appearing to read 'AN', is written over a horizontal line.A handwritten signature in black ink, appearing to read 'Gilberto Jr.', is written above the printed name.

GILBERTO BARRON JR
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100